

United States Arsenal, Arsenal Building  
1500 East Michigan Street  
Indianapolis  
Marion County  
Indiana

HABS No. IND-66

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IND,  
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PHOTOGRAPHS  
WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey  
Office of Archeology and Historic Preservation  
National Park Service  
Department of the Interior  
Washington, D. C. 20240

HISTORIC AMERICAN BUILDINGS SURVEY

HABS No. IND-66

UNITED STATES ARSENAL, ARSENAL BUILDING

Location: 1500 East Michigan Street, Indianapolis, Marion County, Indiana.

Present Owner: Indianapolis School System.

Present Use: High School Classroom Building.

Statement of Significance: The Arsenal Building was erected during Civil War. It was the most important military building in the city and its massive scale was undoubtedly intended to be an expression of military strength.

PART I. HISTORICAL INFORMATION

A. Physical History:

1. Dates of erection: 1863-1864; extensive remodeling 1932. Construction of a U. S. Arsenal at Indianapolis, Indiana was authorized by Congress, under the Act of July 11, 1862 ("More About Tech.," 1952).

The site was selected in March 1863 (Indianapolis News, June 17, 1916, p. 17). On August 14, 1863, Captain T. J. Treadwell, Army Ordnance officer in command of the U. S. Arsenal at Indianapolis submitted a plan of the site and a suggestion for the location of the main arsenal building. Construction began immediately following approval by the Washington Ordnance office (Indianapolis News, January 1, 1864, p. 11, Col. 7).

In a letter dated April 18, 1864 from Brigadier General George D. Ramsay, Chief of Ordnance to Captain James M. Whittemore, the new commander of the Indianapolis Arsenal, the matter of construction of the main arsenal building was discussed "The season having arrived for building operations, and it being of the utmost importance to the interests of the Department that the Indianapolis Arsenal should be put in a condition to be of use...I have to direct that you will use the most energetic measures to press forward the work on the main arsenal so that it can without fail be used for storage by the last part of this year." (Letters to Ordnance Officers February 4, 1864 to May 6, 1864, Volume 27, p. 431).

2. Architect: The Army Ordnance Office first sent Captain T. J. Treadwell to Indianapolis in August, 1863, to decide on the

best site for the main arsenal building. This he described in a letter to General James W. Ripley, dated August 14, 1863 (#305) as follows "This (site) will allow for a street in front of the arsenal 100 feet broad and 200 feet space between the enclosure, and front line probably the most desirable in this latitude."

According to Lee Burns (Early Architects, p. 201) Isaac Hodgson "had charge of construction work on the buildings of the U. S. Arsenal." Hodgson was born in Belfast, Ireland, in 1826 and studied in the architectural office of Sir Charles Lanyon, beginning at age sixteen. In 1848 he came to the U. S. and assisted an architect for some government buildings in Louisville, Kentucky before coming to Indianapolis (Burns, p. 201).

All plans for the arsenal building had to be approved by the Army Ordnance Office in Washington and were routed through field ordnance officers. Captain Treadwell assisted in setting up the Indianapolis site and the basic configuration of the main arsenal building. His responsibilities were assumed by Captain James M. Whittemore after approximately one year. On April 1, 1865 Captain Whittemore wrote the Washington Ordnance Office concerning the fact that "Mr. Hodgson, architect at this arsenal, demands \$10 per day for his services." The Washington Army Ordnance Office responded on April 3, "... I have to state the price now paid - five dollars per day - considering the time actually engaged on the duty, is deemed to be as much as the government should pay. If Mr. Hodgson will not continue his services at the same rate, and with the same understanding, it is believed that the plans are so far matured and carried out that you should be able to complete them without the aid of an architect." (Letters to Ordnance Officers, Volume 31, p. 160).

It is clear from this exchange that Mr. Hodgson did guide the plans and work on the main arsenal building to its completion. Whether he stayed on after the Ordnance Office refused his raise is not certain.

3. Original and subsequent owners: The United States Arsenal site is a tract of land adjoining Woodruff Place (HABS No. IND-67) on the west and comprising 75.14 acres (Industries of Indianapolis, p. 41). In 1868, the arsenal site was one half mile east of the city limits (Edwards Annual Director..., p. 25). Today the site is bounded by Woodruff Place on the east, East 10th Street on the north, Oriental Avenue on the west, and East Michigan Street on the south.

1863 On July 28, 1863 Brigadier General James W. Ripley trans-

mitted orders to Captain T. J. Treadwell to "superintend and direct the execution of such buildings as may be approved of in accordance with plans and instructions from this office," for the Indianapolis Arsenal. "You will accordingly proceed to Indianapolis, Indiana and select upon the land recently purchased for the arsenal location, the site for the main arsenal building," (Letters to Ordnance Officers, Volume 25, page 110). A subsequent exchange of correspondence between Ripley and Treadwell stated: "Your letter of the 14th inst. with the enclosed plan of the Arsenal site at Indianapolis is received. Your suggestion as to the location of the main arsenal building and the clearing of the ground are approved," (Letters, Vol. 25, p. 235).

- 1903 March 27. Site auctioned by the U. S. government to Winona Group under five trustees, for \$154,000 ("More About Tech...", 1952).
- 1909 Winona Group went bankrupt; receiver was appointed ("More About Tech...", 1952).
- 1912 May 22. Indiana Supreme Court decision placed title in the Indianapolis Board of School Commissioners and forbade sale. Grounds must be used for educational purposes ("More About Tech...", 1952).

- 4. Builder or contractor, suppliers: The original contractor is not known, however, correspondence between Captain T. J. Treadwell and Brigadier General George Ramsay of the Army Ordnance Office indicates that Isaac Plunk and John Stuck were hired to deliver "stone from the Indianapolis R. R. depot to the Arsenal site." There is evidence that bricks were made on the site of the arsenal. Captain Whittemore states in his letter of July 23, 1864 to General George D. Ramsay that "The number of men employed at the Depot is 8. In connection with the grounds, 130. The payrolls are constantly increasing from increased development in the work and the rise in price of labor."

In 1932 the building was remodeled by the firm of Bohlen, Meyer, Gibson and Associates of Indianapolis.

- 5. Original plan and construction: The exterior shell of the building remains largely unchanged.

Brigadier General James W. Ripley wrote Captain Treadwell on September 10, 1863 "...referring to the drawings of the arsenal

building which have been furnished to you, I also transmit a tracing of the framing for the roof, the dimensions of which have been corrected," (Letters, Vol. 25, p. 340). It is clear from this and subsequent exchanges between the Washington Army Ordnance Office and both Treadwell and Whittemore in Indianapolis that the design and plan of the "main arsenal building" were largely worked out by the Ordnance Office. Any departures from the original plan were discussed and agreed to by correspondence: "I have to acknowledge the receipt of your letter 29th ulto. enclosing plan proposed for stairs in the arsenal. The reasons therein set forth by you are not deemed correct as regards the weakening of the wall by the plan sent you sometime since. For greater convenience in ingress and egress the stairs will be put in at each end of the buildings. The change in the stairs will be made as you suggest. I enclose herewith plan of the same." (Letters, Vol. 27, p. 557). The actual plans and drawings for the arsenal building have been separated from the correspondence which transmitted them. Thus it is difficult to ascertain from these documents what the interior of the main arsenal building originally was like.

The interior construction of the building as it was before the 1932 remodeling is mentioned in the 1932 architectural and electrical specifications by D. A. Bohlen and Son, Architects. The basement floor was brick and the other floors are described as wooden - presumably on wooden joists - and interior partitions were wooden. Iron columns and girders supported the floor construction of the second and third floors. The present floor construction of the fourth, fifth and sixth floors of the tower is largely unchanged. Here at each floor two trussed beams divide the span into thirds. A central open well at the fifth floor is spanned by a hoist mechanism. Presumably all lower floors originally had similar central openings. The hoist was the means of bringing goods from ground level to the various levels of the arsenal floors, which were probably unobstructed spaces for storage purposes. The roof of the main portion of the building is supported by means of wooden trusses that span the approximately sixty-foot-wide space between the exterior walls and rest upon them. The sixth (top) floor of the tower houses the clock mechanism, which requires only a small portion of the available floor area.

6. Alterations and additions: The Arsenal Building was used as a school of arts and trades under supervision of the Winona Agricultural and Technical Institute ("More About Tech...", 1952). Some alterations must have been necessary for the building to be converted to use as a school. In the spring

of 1916 further remodeling was done to accommodate school uses (More About Tech..., 1952). The most extensive remodeling took place in 1932, when the brick cellar floor and the upper wooden floors were replaced with concrete, and a concrete ceiling for the third floor was suspended from the trusses above. The 1932 work is described in D. A. Bohlen and Son's specifications for the remodeling.

In 1967 the Arsenal Building exterior was cleaned and tuckpointed, according to specifications dated March 29, 1967 by Norman Traut, architect, Building and Grounds Division, and entitled "Arsenal Building Restoration Project."

B. Historical Events and Persons Associated with the Structure:

The work of the whole arsenal was begun under Capt. T. J. Treadwell in 1863. In February 1864, Captain James M. Whittemore took command. Most of the buildings were erected under him, but the arsenal was not completed; for it was turned over to the command of Lieutenant Colonel W. H. Harris after the end of the Civil War, and he supervised the completion of the project (Indianapolis News, January 1, 1964, p. 11, col. 7).

The U. S. Arsenal replaced a state arsenal established by Civil War Indiana governor Morton to supply troops west of the Cumberland Mountains. The state arsenal was located elsewhere in the city and was discontinued in 1864 when the U. S. Arsenal took over (Indianapolis News, June 17, 1916, p. 17).

C. Sources of Information:

1. Bibliography:

a. Primary and unpublished sources:

"Arsenal Building Restoration Project," specifications dated March 29, 1967 by Norman Traut, Architect, Building and Grounds Division. At Buildings & Grounds Office of Arsenal Technical High School.

Indianapolis Arsenal Letters 1863-1865; Letters to Ordnance Officers, Vols 25-31. Deposited at the National Archives, Washington, D. C.

"Remodeling of the Old Arsenal Tech. Building," Architectural, Electrical, and Heating Specifications dated April 12, 1932, D. A. Bohlen & Son, architects. At Buildings & Grounds Office of Arsenal Technical High School.

b. Secondary and published sources:

Burns, Lee. Early Architects and Builders of Indiana,  
Indiana Historical Society, Indianapolis, 1935.

Edwards' Annual Director to the Inhabitants Etc. in the  
City of Indianapolis for 1869, Indianapolis, 1869.

Indianapolis News, June 17, 1916, p. 17.

Indianapolis News, January 1, 1964, p. 11, col. 7.

Industries of Indianapolis, published under the auspices  
of Indianapolis Board of Trade, Chicago and  
Indianapolis, 1889.

"More About Tech. Highlights Brought to Light During the  
Celebration of the Fortieth Anniversary Year of the  
Arsenal Technical High School of Indianapolis, 1912,  
1952-53," pamphlet, 1952.

Prepared by Wesley I. Shank  
Architectural Historian  
National Park Service, August, 1971  
and Candace Reed  
Architectural Historian  
National Park Service, Spring, 1977

PART II. ARCHITECTURAL INFORMATION

A. General Statement:

1. Architectural character: The most important military building in the city. An example of the use of extremely large architectural scale recalling the "Revolutionary Architecture" of Boulee. Undoubtedly designed as an expression of military strength.
2. Condition of fabric: Excellent; except upper levels of stairway in tower needs repair.

B. Description of Exterior:

1. Over-all dimensions: 173' east-west (11 bays) x 108' north-south (3 bays); three story rectangular building with raised basement; central six-story tower projects about 32' and is 35' wide.

2. Foundations: Gray limestone blocks above grade. At the corners, the lowest quoin block is 10 feet wide and 5'-2" high measured from ground level. Seen from the basement the foundation walls below grade are of stone.
3. Wall construction, finish and color: Brick bearing walls. Brick at exterior is a warm orange-red color. At corners, on the first floor, there are nine-foot wide grey limestone rusticated quoin blocks. At the upper levels of the building there are giant-order paired pilasters with three projecting stone bands - two levels of giant orders at the tower and one level at the rest of the corners. This corner treatment is also of gray limestone. A gray limestone frieze with triple roundel decoration and a cornice caps the wall. A belt course of gray limestone runs between the first and second floors, and the building frieze and cornice follows around the tower.
4. Structural system, framing: At the basement, stone piers capped by reinforced concrete support reinforced concrete beams and pan-joist floor system. The first, second and third floor beams and first and second floor columns are iron, as described in the Specifications for "Remodeling of Old Arsenal Tech. Building," D. A. Bohlen & Son, Architects, April 12, 1932. These columns are seen on the second floor as 12" diameter shafts with decorative capitol and abacus. On the first floor they are boxed in. The floor system of the second and third floors is of reinforced concrete. The ceiling of the third floor, which is suspended by means of metal struts from the wooden roof trusses, is also of reinforced concrete. In the tower, the construction of the fourth, fifth and sixth floors is of wooden joists (presumably - they were ceiled) resting on a pair of heavy timbers that spanned the tower from east to west at the third points. These timbers were trussed with metal rods at the under side and spaced away from the timber at the third points. The tower roof is a plane, sloped about 18" to the north. One timber, trussed as are the others in the tower, but laminated and bolted, supports the roof.
5. Porches, stoops, bulkhead: At the north entrance, concrete steps lead to grade with brick bulkhead walls.
6. Chimneys: Only one, at north wing exterior wall, of brick.
7. Openings:
  - a. Doorways and doors: Doors are wood, glass lights, common type. Door frames are wooden. The north entrance has an

elaborate Victorian-Classic entranceway frame of iron surrounding the two double doors, sidelights and transoms and a cornice. Tower arched doors have limestone arches and pilasters. The keystone over the south door is carved "1865."

- b. Windows: Cellar, three-light sash. First, second, and third floors have eight-over-eight light double-hung windows. North wall of tower, fifth floor, has an approximately six-foot diameter circular window. The other three circular openings in the tower have clock faces. Window frames are of gray limestone. Jamb members are one piece, although carved to look like three. On the interior, segmental arches span the window openings.

8. Roof:

- a. Shape, covering: The main portion of the slate roof is hipped, with copper ridge flashing and lead valley and gutter flashing. The gable roof of the north wing is similar. The flat roof of the tower is covered with built-up roofing coated with aluminum paint. This last roof is accessible by means of a hatch.
- b. Cornice, eaves: The cornice is of gray limestone.
- c. Tower: The fourth floor of the tower has a ten foot square opening in the floor with a sturdy wooden balustrade surrounding it. The opening is now sealed. The fifth floor of the tower contains a similar opening across which is suspended a winch mechanism with drums and gears and finally a large wooden wheel at one side. A rope around the wheel was the means by which a man operated the winch. The rope hung through special holes in the floor. At the sixth floor is a small room at the center of the tower in which the clock mechanism is located. The clock mechanism is still in good condition and is in process of being repaired. Shafts and gears connect to the three clock faces below. On the roof a bell inscribed "1867 McNeely's, West Troy, N. Y." is held in a wooden frame directly above the clock mechanism, which operates it. Weights at the northwest corner of the tower provide the power to operate the clock; one of the weights is original, of limestone. The other dates from the 1950's.

C. Description of Interior:

- 1. Floor plans: The building presently serves as a school. In

general, the three floors have a central hall plan, although there is considerable open space at the first floor and the basement. Presumably the building originally was simply a large open warehouse.

2. Stairways: In the north wing there is a metal and concrete stairway on both the east and west walls. Windows on the east and west walls have been bricked in and small windows at intermediate levels have been added. The original wooden stairway with turned balusters ascends along the south wall of the tower from the fourth floor to the roof. From the fourth floor down to the ground the original stair has been replaced with checker plate metal from fourth down to third level, metal and concrete from third to level of the entrance door. "Shadow's" of the original stairs may be seen on the south wall of the tower at the second and third floor levels.
3. Doorways and doors: Modern. Metal door frames.
4. Notable hardware: See tower. Otherwise none.
5. Mechanical equipment: Central steam from campus steam plant. Usual plumbing and electrical system.

D. Site and Surroundings:

1. General setting: The Arsenal Technical High School Campus is just west of Woodruff Place and is about 75 acres in area. The Arsenal Building tower facade faces south. The narrow ends of the building face east and west. Other buildings on the site of interest include a barracks, commandant's residence, guardhouse, powder magazine, and barn, all dating from the period of the Civil War or shortly thereafter.
2. Historic landscape design: The campus was formerly the arsenal grounds and is well landscaped today with large, old trees. The landscape thus may be of historic interest and value.

Prepared by Wesley I. Shank  
Architectural Historian  
National Park Service  
August, 1971

PART III. PROJECT INFORMATION

These records were prepared as part of a cooperatively financed project in 1970 between the Historic Landmarks Foundation of Indiana and the Historic American Buildings Survey. The project was under the general direction of James C. Massey, Chief of the Historic American Buildings Survey. Measured drawings were prepared by student architects under the direction of Professor David R. Hermansen of Ball State University, Muncie, Indiana. Professor Wesley I. Shank of Iowa State University prepared the historical data, and Jack E. Boucher, HABS staff photographer, provided the photographic record. H. Roll McLaughlin, FAIA, State Preservation Coordinator, President of the Historic Landmarks Foundation, and member of the HABS Advisory Board, served as consultant throughout the project. This report was edited for HABS in 1977 by Candace Reed.